

The Dirt on Composting!



Decomposers Help Our Planet



What do millipedes, snails, worms, and mushrooms have in common? They are all **decomposers** or living things that eat **organic matter**. Organic matter includes pieces of plants and animals that were once alive and are now rotting, or in a state of **decay**. This includes leftover food like banana peels, half-eaten sandwiches, and apple cores. When decomposers eat organic matter, they pass it through their bodies and break it down into **compost**.

Compost looks like dirt, or **soil**, and is the color of dark chocolate. It is crumbly and smells clean and fresh like the earth after it rains. Compost acts like a vitamin pill—it adds important vitamins or **nutrients** to the soil. Just like people need vitamins to stay strong and healthy, so do plants! When the soil is full of nutrients, more plants are able to grow. Compost can help produce more food for people in a natural and earth-friendly way.

Nature's Way of Recycling



In nature, decomposers live under logs, rocks, and leaves. They feast on organic matter and leave behind nutrient-rich compost for meadows, forests, and mountains. This is nature's way of recycling!

Decomposers can live in many places, including our backyards. Since decomposers help in a process called **composting**—when the natural process of decay is sped up—some people create homes for decomposers by layering leftover food and yard clippings in backyard compost bins outside.

Earth Builders



Decomposers who live in the compost piles—such as worms and pill bugs—have important jobs. They help keep their piles warm, they dig, they chew, and they digest our leftover food into compost. For instance, earthworms pass food through their bodies and leave behind **castings**, or nutrient rich pieces of crumbly compost, that provide plants with vitamins. These castings or compost can be added to houseplants, gardens and even to farmland where farmers grow our food.

Food Comes from the Earth



Although the earth is large, only a fraction of our land can be used for growing food. This land is called **topsoil**. Topsoil is the top six inches of soil that contains nutrients that plants need to grow. Most topsoil is covered by roads, buildings, houses, and parks. Some topsoil is unusable in areas like mountains that are too rocky or steep to grow food crops. Other times, topsoil is blown away by the wind or washed away by rain. In other situations, too much farming in one area, or **over-farming**, has drained or **depleted** important nutrients from the soil. Because of this, only a small amount of topsoil is left for growing food to feed the billions of people on Earth.